



# *The Blurb*



*Newsletter of The Phil-Mont Mobile Radio Club*

*63 Years of Public Service, 1949 to 2012*

Volume 62 Number 10

[www.phil-mont.org](http://www.phil-mont.org)

October 2012

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*Is it Halloween again?*



*Or is it just a PMRC board meeting?*

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*Leaves falling everywhere,  
that's why we call it Fall!*

<p><i>The Blurb</i> is published monthly by and for the members of The PHIL-MONT MOBILE RADIO CLUB, Inc., whose purpose is to promote Amateur Radio in general, and Mobile Radio in particular. <i>Copying and quoting</i> is permitted with a credit line. We gladly exchange publications with other amateur radio clubs. Requests should be sent to the Editor. <i>Subscriptions</i> are available to non-members for \$12, addressed to the Treasurer.</p> <p><b>Editor:</b> Rick DeVirgiliis <b>ND3B</b> nd3b@arrl.net 215-908-7225</p> <p><b>Labels and mailing:</b> <b>KB3IV</b></p> <p><b>Submissions deadline:</b> All copy must be in the hands of the Editor by the 20th of the previous month.</p>		<p><b>Directors:</b></p> <p><b>WU3I (12)</b> <b>W3MHP(12)</b> <b>KB3SJS(12)</b> <b>WA3KIO(13)</b> <b>N3QV(13)</b> <b>ND3B(13)</b> <b>KB3IV(A)</b></p>	<p><b>Contact Phil-Mont: P.O. Box 88</b> <b>Abington, PA 19001</b> <a href="http://www.phil-mont.org">http://www.phil-mont.org</a> Website: Eric N3QV &amp; Andrew KC2PMW</p> <p><b>For club information:</b> Contact any club officer, or the repeaters listed below. Address or club directory changes and articles for the membership e-mail list should be sent to: KB3IV</p>
		<p><b>Sunday Morning Net Schedules</b></p> <ul style="list-style-type: none"> <li>• <b>2 Meter/ 70cm Net</b>..... at 0930L on W3QV repeater</li> <li>• <b>10-on-10 Net</b> ..... at 1000L 28.393 MHz USB (±QRM)</li> <li>• <b>75 meter Net</b> ..... at 1020L 3.993 MHz LSB</li> <li>• <b>ARES</b> at 2100L on the W3QV repeater</li> </ul>	
<p><b>Committees</b></p> <p>Audit: NS3K Blurb folding: KB3IV &amp; N3GLU Directory: KB3IV</p>	<p>DX: N3MT Emerg.Coor: K3HWE Field Day: KE3QB Internet: N3QV &amp; KC2PMW Membership: N3XKE</p>	<p>Net Control: KB3IV Publicity: W3RM Program: Club VP Public Service: KE3QB Refreshments: W3AOK Repeater: W3AOK</p>	<p>Scholarship: W3RM Skywarn: WX3PHI Sunshine: N3GLU VE Program: NS3K Welcome: N3UBY Youth: KC2PMW</p>

***All visitors are welcome!***

The club meets at 7:30 PM on the *second* non-holiday Wednesday each month except July and August at **Roxborough Memorial Hospital**, 5800 Ridge Avenue, Philadelphia, PA 19128  
Maps and directions are available at [www.phil-mont.org](http://www.phil-mont.org).

**License Examinations** are held on the fourth **non-holiday Thursday** each month at **Community Ambulance Association, 1414 E. Butler Pike, Ambler PA 19002**  
Registration begins at 7:00 P.M. Applicants should contact Jim McCloskey NS3K at 215-275-2979 or [jmccloskey@msn.com](mailto:jmccloskey@msn.com) for the latest information.

**Club Stations W3QV/R: The Jim Spencer Memorial Repeater System**  
Ridge & Port Royal Avenues, Philadelphia, PA **Trustee: W3RM**  
**147.03 MHz + PL 91.5 Hz 444.80 MHz + PL 186.2 Hz**  
Reach us on EchoLink through W3QV-R  
**W3AA Trustee: WU3I**  
**W3EM: Field Day/special event station Trustee: N3QV**

***The Officers***

**Pres:** KB2ERL Bob Nicotera [bnic1903@msn.com](mailto:bnic1903@msn.com)  
**Vice Pres:** W3STW Al Tribble [wstw@juno.com](mailto:wstw@juno.com)  
**Sec:** KB3MIV Jen Miller [jencaz29@gmail.com](mailto:jencaz29@gmail.com)  
**Treas:** W3RM Richard A. Moll [roger.mike@verizon.net](mailto:roger.mike@verizon.net)  
**Asst. Treas:** N3MT Michael P. Taraborrelli [michaelmt\\_1999@yahoo.com](mailto:michaelmt_1999@yahoo.com)

## *The Prez Sez ...*



### *Phil-Mont Birthdays & Tidbytes*

#### *October Birthdays*

01 Ed Masarsky - KB3IV  
Charlie Phelps - N3OOV  
02 Donna Stevenson (XYL K3HWE)  
03 Lisa Brady – KA3VIL(XYL N3CB)  
06 Chris Brady – N3CB  
Joan Freer (XYL W3YLT)

07 Stuart Zeiger - KB1QW  
08 Frank Kohn - W3MHP  
10 Patricia DiNardi - (XYL N3XKE)  
11 Charlye Johnson, Jr. - K3CJ

15 Randall Aiken

31 Dick Klein - W3WXC

#### MEMBERSHIP STATS

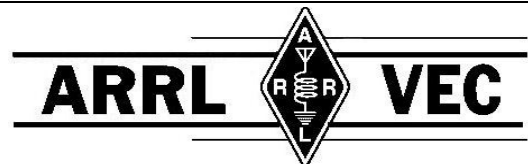
At press time P.M.R.C. has:

83 FULL PAID MEMBERS

10 FAMILY MEMBERS

3 YOUTH MEMBERS

1 HONORARY MEMBER



*Thursday evening VE session is on the 25<sup>th</sup>  
this month.*

*As always, many thanks to our VE team!*

## *From the Secretary...*

### **BoD minutes 8/5/12**

President Bob KB2ERL opened the meeting at 20:20 hrs. Attending were John KB3SJS, Bill W3AOK, Dick W3RM, Fred WA3KIO, Al W3STW, Steve WU3I, Ed KB3IV and Rick ND3B.

Treasurer Dick gave a financial report and the club's finances are sound.

Repeater report by Bill says the repeater is working well as are the off-sites. The building needs paint however. Improvements to the Echolink system were discussed.

The Board also wishes to thank Doug WA3DSP for his efforts in repairing the off-site equipment.

VP Al informed us about the upcoming program schedule. At the September club meeting Bob WA3PZO, from HARC will tell about a weeklong summer event called The 13 Colonies. In October Dennis Silage PhD, K3DS, will return to talk about Fun Cube Dongle which concerns amateur satellite activity. November is Old Timer's Night and all members are encouraged to help our senior members attend if possible. December is election time again and January brings AuctionFest! Al will also make copies of the club bylaws to include in welcome packages for new members.

Ed and Dick received a request via email for communication assistance at the CFS event on October 14<sup>th</sup> and will inform the membership of this volunteer opportunity at the September meeting.

Nominations for the upcoming December election were made as the next Board meeting is in November. The nominees are: President, Bob KB2ERL; Vice President, Al W3STW; Treasurer, Dick W3RM; Secretary, Rick ND3B.

Board member terms expiring in 2012 are Frank, W3MHP; John, KB3SJS; and Steve, WU3I.

Nominations will remain open for those wishing to serve on the board through the November general meeting.

The President ended the meeting at 21:40 hrs.

### **General Meeting 8/12/12**

President Bob, KB2ERL opened the meeting at 19:40 hours.

Repeaters were discussed and it was explained that anyone using the repeater after midnight will not hear a tone but it is in service. Also QSOs are limited to one minute after midnight. The building still needs to be repainted.

Jim, NS3K reports that three candidates attended the Saturday VE session. Two upgraded to extra and the third did not succeed.

ND3B asks for Blurb submissions by the 20<sup>th</sup> but is flexible as always.

Steve, WU3I advises anyone with questions about the MS150 should contact him or Carmen, KE3QB.

KB3IV announced the CF v volunteer opportunity as mentioned in last month's Blurb.

Also reminded the members about the Directory Supplement coming with the October Blurb and asked that changes or corrections be sent to him.

Jim, WQ3H thanked Bob Thomas for all his work on his excellent informative feature in the Blurb each month: THIS AND THAT, Miscellaneous Ramblings.

Guest Bob, WA3PZO won the 50/50 drawing and donated the money to the scholarship fund.

Al, W3STW introduced guest speakers Carl, N3ZZK and Bob, WA3PZO from HARC who gave a fine presentation about the 13 Colonies event held in July.





## THIS AND THAT

### Miscellaneous Ramblings

Bob Thomas, W3NE



*Professor Bob, W3NE*

## AUDIO HUM

### Or was it?

RCA Broadcast Systems in Camden had been *the* premier manufacturer of equipment that at one time fulfilled every need of AM, FM and TV broadcast companies throughout the world. But the Corporation began a tortured demise in the early 'sixties as competitors started to make better products for lower cost. The trend began with audio equipment and quickly engulfed video monitors, switchers, and finally progressed to video recorders and cameras.

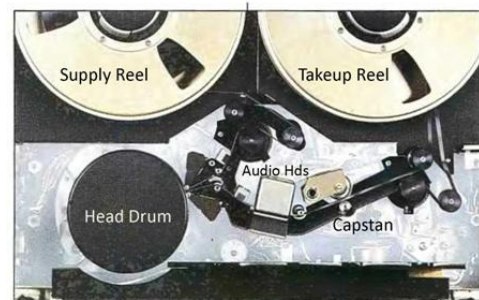
After the invention of video recording for broadcasting by Ampex in 1956, RCA responded by introducing the first all solid-state VTR. But then, while Ampex continued improving picture quality with advanced circuit designs, RCA management chose to minimize investment in advanced development by re-packaging old circuits in warmed-over variations of their old machine that were not competitive in performance. The shock hit the fan in the early 1980s when Sony, supported by Ampex, perfected a consumer-type VTR for broadcasting. The new system, designated "C-Format," produced previously unattainable still-frame and slow motion pictures – answers to sports producers' prayers! Transports were smaller and much lighter, supporting truly portable VTRs. On top of all those attributes, tape cost was slashed. What was not to like?

RCA's lethargic response to Sony's incursion was that the new format would be slow to be adopted because the industry was not particularly interested in its so-called

advantages and it would be incompatible with huge existing libraries of legacy tapes in the old format. Contrary to that myopic view, the Sony system was so appealing that networks and large broadcast stations immediately abandoned the out dated system, library or not, to embrace the enticing performance and economic advantages of the C-Format. To stay in business the mighty Radio Corporation of America was forced to swallow its pride and sell VTRs sporting the RCA logo that everyone knew was conceived, designed and manufactured by Sony. Only then did our Marketing Management finally acknowledge the old system was really dead and the time had come for us to design and manufacture our own C-Format VTR, which would be called the TR-800.



**Figure 1 TR-800**



**Fig. 2 – TR-800 TAPE TRANSPORT**

Fig. 1 shows a TR-800 production model and Fig. 2 is a close-up of the tape path. 1" wide tape from a supply reel at left wraps completely around a 5" diameter rotating head drum, past audio heads, then over a capstan that pulls the tape at constant tension and speed, and onto a take-up reel at right. Signal and control modules plug into slots in a bay below the transport. Drum rotation in combination with linear tape motion causes magnetic heads on the surface of the drum to record video tracks diagonally across the tape, each track corresponding to one TV field. The drum is turned by a "brushless" dc motor that is an inside-out version of a

conventional dc motor. Permanent magnets on the motor shaft furnish a field and a stationary winding inside the motor's case functions like an armature. DC controlled by electronic switches (corresponding to a commutator) causes the stator flux to pull the permanent magnets around to turn the head drum.

A slight diversion is necessary to explain a personnel issue in the department. Last winter I related a situation that had a disastrous outcome when a co-op student engineer was accorded exceptional privileges during his temporary work assignment in our department. A similar, but less explicit policy evolved early in design of the TR-800. Although not an overt management mandate as before, engineers with long experience soon sensed that valid suggestions to junior engineers were discouraged or ignored. A young engineer might suddenly stop working on a circuit if an experienced one happened to look over his shoulder and ask a question. The youngsters could not be blamed; they were intelligent and wanted to prove themselves, but experienced veteran engineers soon learned to keep quiet and mind their own business.

TR-800 design began immediately and breadboarded circuits were soon converted to plug-in modules for final optimization in two fully functional prototype machines. Even with two development models, continual access required by engineers who needed machine time to optimize the numerous subsystems that required attention meant we had to work in three shifts around-the-clock as pressure mounted to meet our production release deadline.

Most initial problems were finally solved, but one that had dragged on for months with no improvement was failure to meet the audio signal-to-noise specification due to what was called "60-cycle hum." The newly-minted engineer responsible for the audio system was stymied, but not enough to accept earnest attempts by anyone with a background in VTR audio systems to help solve his dilemma.

One night the neophyte engineer and I were the only ones working on the 11 PM to 8 AM shift. He was in another lab sweating over his audio S/N problem on one prototype machine while I used the other one for final tests on the FM and video systems in preparation to signing-off production drawings. After wrapping up around 4 AM I wandered over to where audio tests were being conducted and this time the young chap, perhaps now frantic with the completion deadline looming and no solution in sight, seemed receptive to help. I asked him to show me the S/N problem and when he pressed the PLAY button, sure enough, a spurious sine wave

appeared in the otherwise quiet audio playback channel. However, something about that errant signal jumped out right away: it was not a constant frequency, but began at a very low frequency that increased to around 60-cycles as the head drum came up to speed.

The "hum" that had been chased for two months was not conventional hum at all. *It was being caused by the head drum motor!* Nobody had previously paid attention to what was actually going on when the VTR started up. The brushless motor, just inches from the audio heads, was emitting a strong magnetic field from its rotating permanent magnets, which of course started out slowly when the drum first began to turn and settled down at around 60 Hz. when the drum got up to synchronous speed. The motor's stray magnetic field was inducing a voltage in the playback heads that had been misinterpreted all that time as something related to the power line or an obscure ground loop. The solution was simple: Mumetal shields were fabricated the next day to wrap around the body of the motor, supplemented by a Mumetal disk to block flux radiating from the drum end of the motor. That cured the elusive problem to the relief of all concerned, especially our young friend.

Elation was short lived. Although the TR-800 design was finally released and a few pilot models made and sold, it was too late. The financial condition of the entire corporation had deteriorated to the point that RCA was washed up. Parts of the company were sold to GE, Stanford Research Labs and Thomson CSF (France), and although "RCA" still survives as a hollow trade mark, the Corporation joined the legion of other failed American companies into oblivion.





August 20, 2012

Richard Moll, W3RM  
PhilMont Mobile Radio Club  
P.O. Box 88  
Abington, PA 19001-0088

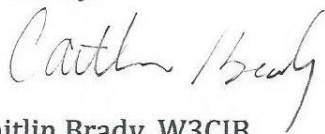
Dear Mr. Moll,

I would like to thank you and the PhilMont Mobile Radio Club for awarding me the *FAR Amateur Radio Scholarship*. I cannot express how grateful I am for this generous gift. This fall, I will be a sophomore at Drexel University where I am studying architecture. So far, I love attending Drexel, it's architecture program, and living in the city of Philadelphia.

Although my architecture workload takes up a majority of my time, I still remain active in Amateur Radio. In high school, I founded an Amateur Radio Club and encouraged several other students to become involved and obtain their Amateur Radio license. At Drexel University, I am the secretary of the *Drexel University Amateur Radio Club, W3MGF*. Having recently upgraded to a general class license, I became a VE. I would like to learn Morse Code, but will have to see if this will fit into my summer schedule. While operating during contests, I especially enjoy working DX. These contests afford me the opportunity to hang out with my dad in his "ham shack." I also am privileged to be part of the PhilMont Mobile Radio Club. My favorite club activity would definitely be Field Day at Fort Washington State Park. Although my family may not be adept at camping overnight, I still like to work some stations and see others operating other bands or even Morse Code.

Amateur Radio began as a wonderful opportunity to spend time with my dad and to talk to people, of all types, around the world. My mom and sister are also licensed and the hobby has blossomed into a cherished pastime and outlet for the whole family. I have been blessed to be involved in Amateur Radio and I must thank you again for awarding me the *FAR Amateur Radio Scholarship*. Thank you!

Sincerely,



Caitlin Brady, W3CJB  
5 Yale Road  
Plymouth Meeting, PA 19462

## ***Have you heard about D-Star?***

Philadelphia Digital Radio Assn meets the first non-holiday Monday of each month at the Community Ambulance Assn 1440 East Butler Pike Ambler, Pa. 19002 at 7:00 pm.

The club has two D-star repeaters on the following frequencies: On two meters - 146.61 (-) and on 70 cm 445.18125 (-)

I run a weekly club D-star net on Mondays at 8:00 pm local time on the club 2 meter frequency.

*de Jim, NS3K*

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## ***Check out this rope for your antenna project –***

***3/32" Braided Olive Drab - Dacron / Polyester cord***

***This is a high quality braided polyester cord with a breaking strength of 210 pounds. Proudly Made in the U.S.A.!***

***This is a gorgeous solid braid perfect for dipole antennas. Very low stretch and strong. Will withstand the weather & sun for 7 to 10 years.***

***PRICE \$10.00 PER 100 FEET  
SOLD IN 100 FOOT LOTS  
CONTACT STEVE WU3I AT  
WU3I@ARRL.NET***

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## **Scouts making news this month and you can get involved!**

The 55th *Jamboree On The Air* will take place on 20 and 21 October 2012.

This year's theme is: **How big is your world?**  
**<http://www.arrl.org/jamboree-on-the-air-jota>**

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## ***Volunteers Needed***

**3rd Annual Aptalis CF  
Cycle For Life®  
Sunday, October 14th, 2012**

Join us for our 3rd Annual bike tour as we ride through the most scenic terrain that the Delaware Valley region has to offer. Cyclists will start in the Fairmount Park section of Philadelphia riding through historic areas such as East Falls, Mount Airy, and Fort Washington, returning to the city along the banks of the Schuylkill river, passing Manayunk and the famed Boat House Row. Riders will have a choice of two mileage options: 35 miles or 65 miles. Cycle at your own pace.

Jason Brinn, Development Manager  
Cystic Fibrosis Foundation  
Office: (610) 325-6001 Cell: (267) 496-1557  
Fax: (610) 325-6588 [jbrinn@cff.org](mailto:jbrinn@cff.org)

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## **Don't miss the October meeting!**

Dennis Silage PhD, K3DS, will return to talk about Fun Cube Dongle which concerns amateur satellite activity.





# 2012 Phil-Mont Radio Club Directory Supplement

October 2012

CALL	MEMBER	ADDRESS	CITY	STATE/ZIP	HANDLE	SPOUSE/CALL	HOME PHONE	WORK/CELL
K3CHR	John E. Wright	7841 Ridge Ave Apt A122	Philadelphia	PA 19128	Jack		215-483-5865	215-290-8027 (cp)
N3GBJ	Christopher D. Ruhl	105 Clifton Avenue	Collingdale	PA 19023-3809	Chris			215-580-4182
WA3GM	Gregory J. Malone	P.O. Box 82	Cheltenham	PA 19012	Greg		267-249-0135	
KA3IRJ	Fred J. Uebelhoer, Jr.	118 Magnolia Lane	Sunbury	PA 17801	Fred	Penny		610-310-2877
AB3OM	James M. Weiler	403 Saw Mill Court	East Norton	PA 19401-2044	Jim		610-278-2601	
KE3OB	Carmen Decicco	2578 Orthodox Street	Philadelphia	PA 19137	Carmen			215-801-2361 (cp)
WA3QED	James Day	3154 Arbour Green Court	Hatfield	PA 19440-3488	Jim		215-799-0404	
K3RIZ	Raymond C. Kiesel	1608 Mulberry Road	Flourtown	PA 19031	Ray			215-872-6028 (cp)
N3SHM	James L. Lamont	4708 Sheldon Street	Philadelphia	PA 19127	Jim	Susan	215-483-7597	
NC3U	Salvatore C. Marandola	722 Mill Grove Drive	Norristown	PA 19403	Sal		610-306-2817	
KB3YQM	Susan Garretson	4809 Ridge Avenue	Philadelphia	PA 19129-1736	Susan		215-487-0546	610-644-7800 X2373

The *Blurb*

***October at Phil-Mont***

7th Sun KB3SJS NCS  
8th Mon Columbus Day  
14th Sun WU3I NCS  
15th Mon National Grouch Day  
21st Sun KB3IV NCS  
25th Thurs VE session  
28th Sun KC2PMW NCS  
31st Wed Halloween

***Don't forget the ARES net on Sunday nights and  
the Digital net on Tuesday nights.***

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***First Class Mail***

The Phil-Mont Mobile Radio Club, Inc  
1700 Street Rd. Apt. H3, Warrington PA, 18976

*The Blurb*